

PRODUCT INFORMATION

TBE

Tris-Borate-EDTA

(0658, 0478, J490, J885, J752, J755)

TBE buffer is commonly used in all DNA electrophoresis applications (both for acrylamide and for agarose gels). In general, TBE buffer offers better resolution of 0.1 to 3 kb fragments; whereas, TAE (Tris-Acetate-EDTA) buffer provides better resolution of fragments greater than 4 kb. Furthermore, TBE is better suited for high-voltage (>150V) electrophoresis because of its higher buffering capacity and lower conductivity than TAE¹.

AMRESCO offers TBE in a number of different formats. 10X liquid concentrate or the 5X liquid concentrate can be used to easily prepare a 1X working solution by diluting with distilled, deionized water. Ready-Packs™ allow for the stable storage of the pre-mixed powder form that can be dissolved in distilled, deionized water to yield 1 liter each of 10X TBE buffer solution.

A solid, tablet form of 50X TBE allows for the convenient, space-saving storage of TBE in a non-precipitable form. The EZ TBE 50X concentrate tablets come individually pouched and require heating for less than a minute in a microwave in water to dissolve. The dissolved tablet is then reconstituted to the appropriate volume to yield the required TBE solution. Fresh TBE can be made in a matter of minutes for any electrophoresis application. The tablet format allows for a longer shelf life without precipitation problems and also decreases the storage space normally required for liquid TBE.

Code	pH (1X)	Conductivity (1X)
0658	8.2-8.4	750-1250
0478	8.1-8.5	750-950
J490	8.2-8.4	750-1250
J885	8.2-8.4	750-1250

Codes 0658, J490, and J885 are made with EDTA, Disodium Salt, Dihydrate (Code 0105)

Code 0478 is made with EDTA, Free Acid (Code 0322)

Ordering Information:

Product	Code	Size
TBE 10X Liquid Concentrate	0658	4L
TBE 5X Liquid Concentrate	J885	1L 4L
TBE 10X Ready-Pack™	0478	2 pk 40 L (Buffer Dry)
TBE 10X Ready-Pack™	J490	2 pk
EZ TBE 50X Concentrate (Each 10ml tab makes 500ml 1X TBE)	J752	10x10ml 20x10ml
EZ TBE 50X Concentrate (Each 20ml tab makes 1 liter 1X TBE)	J755	10x20ml 20x20ml

Reference:

1. Please note that concentrations of 5X TBE buffer or greater may precipitate due to the nature of the product. This precipitation is a result of nucleation of salt crystals by insoluble materials. AMRESCO routinely filters 0658 TBE 10X Concentrate to reduce this chance of precipitation. If crystallization does occur, additional filtration may be necessary. The solution should be filtered through a 0.2 µm cellulose acetate or cellulose nitrate filter.

Mayeda, A. and Krainer, A. BioTechniques, 1991. p. 10.2, 1820.

